

## B. Claims

The present Amendment has been prepared in accordance with a revised format established by the U.S. Patent and Trademark Office as set forth in the O.G. Notice 1267 Off. Gaz. Pat. Office 106 of February 25, 2003.

Please amend claims 1-14 as follows. In accordance with the revised amendment format, a complete listing of all the claims appears below; this listing replaces all earlier amendments and listings of the claims.

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1. (Currently Amended) A conductive organic compound device; device comprising:

a pair of oppositely spaced electrodes, and

a carrier transporting layer disposed between the electrodes and in contact with one of the electrodes;

wherein the carrier transporting layer comprises a conductive organic compound having a  $\pi$ -electron resonance structure in its molecule, and the  $\pi$ -electron resonance structure plane of the conductive organic compound in the carrier transporting layer is aligned substantially parallel to surfaces of the electrodes.

2. (Currently Amended) A conductive liquid crystal device; device comprising:

a pair of oppositely spaced electrodes, and

a carrier transporting layer disposed between the electrodes and in contact with one of the electrodes;

wherein the carrier transporting layer comprises a conductive liquid crystal having a  $\pi$ -electron resonance structure in its molecule, and the  $\pi$ -electron resonance structure plane of the conductive liquid crystal in the carrier transporting layer is aligned substantially parallel to surfaces of the electrodes.

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3. (Currently Amended) An organic electroluminescence device; device comprising:

a pair of oppositely spaced electrodes, and  
a carrier transporting layer and a luminescent organic layer disposed in lamination between the electrodes so that the carrier transporting layer is disposed in contact with one of the electrodes;

wherein the carrier transporting layer comprises a conductive liquid crystal having a  $\pi$ -electron resonance structure in its molecule, and the  $\pi$ -electron resonance structure plane of the conductive liquid crystal in the carrier transporting layer is aligned substantially parallel to surfaces of the electrodes.

4. (Currently Amended) An The electroluminescence device according to Claim 3, wherein the luminescent organic layer and the carrier transporting layer comprising a conductive liquid crystal have been formed by vacuum deposition.

5. (Currently Amended) ~~An~~ The electroluminescence device according to Claim 3, wherein the substantially parallel alignment of the  $\pi$ -electron structure plane of the conductive liquid crystal in the carrier transporting layer has been achieved by a heat treatment of the device.

6. (Currently Amended) ~~An~~ The electroluminescence device according to Claim 4, wherein the luminescent organic layer is in an amorphous state.

7. (Currently Amended) ~~An~~ The device according to any one of Claims 3 to 6, wherein the conductive liquid crystal is a discotic liquid crystal.

8. (Currently Amended) ~~An~~ The device according to Claim 7, wherein the conductive liquid crystal is in a discotic disordered phase or a liquid crystal phase having a lower order than the discotic disordered phase.

9. (Currently Amended) ~~An~~ The device according to any one of Claims 3 - 6, wherein the conductive liquid crystal is a smectic liquid crystal.

10. (Currently Amended) ~~A~~ The device according to Claim 9, wherein the conductive liquid crystal is in a smectic E phase or a liquid crystal phase having a lower order than the smectic E phase.

11. (Currently Amended) A conductive liquid crystal ~~device~~; device comprising:  
a pair of oppositely spaced electrodes, and  
at least one conductive liquid crystal layer formed by vacuum deposition of a conductive liquid crystal and assuming a liquid crystal state and an amorphous layer formed by vacuum deposition of a conductive organic compound and contacting the conductive liquid crystal layer, respectively disposed between the substrates.

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12. (Currently Amended) An organic electroluminescence ~~device~~; device comprising:  
a pair of oppositely spaced electrodes, and  
at least one conductive liquid crystal layer formed by vacuum deposition of a conductive liquid crystal and assuming a liquid crystal state and an amorphous layer formed by vacuum deposition of a conductive organic compound and contacting the conductive liquid crystal layer, respectively disposed between the substrates;  
wherein either one of the conductive liquid crystal layer and the amorphous layer is a luminescence layer.

13. (Currently Amended) ~~An~~ The electroluminescence device according to Claim 12, wherein the conductive liquid crystal is a discotic liquid crystal in a discotic columnar phase.

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14. (Currently Amended) ~~An~~ The electroluminescence device according to  
Claim 12, wherein the conductive liquid crystal is a smectic liquid crystal in a smectic  
phase.

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